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2007
SUGGESTIONS FOR
FOOD SERVICE
FOR DAY CAMPS AND
RECREATION PROGRAMS 17



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U.S. DEPARTMENT OF AGRICULTURE
FOOD AND NUTRITION SERVICE
FNS-80 [1972]

CONTENTS

	Page
Food Assistance from USDA	1
Safe Food Handling	3
USDA Donated Foods—Ordering, Storing	6
Required Amounts of Food to Serve for Boys and Girls of Specified Ages	7
Meal Planning Form	8
Ideas for Preparation of Food for Day Camps With Limited Facilities	9
Suggested Menus	10
Selected Recipes from “Quantity Recipes for Type A School Lunches	13
How to Calculate the Quantities of Food Needed	34
Nonfat Dry Milk (How to Reconstitute)	35

Revised June 1972

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Nutrition and Technical Services Staff

80, rev., 4/8.
June 1972

FOOD ASSISTANCE FROM USDA

Two USDA food assistance programs are available to provide foods for day camps and other recreation programs. The Food Distribution Program makes a number of basic foods available for all non-profit camps for children. In addition, for day camps and other summer recreation programs for children from low-income areas there is the "Special Food Service Program for Children." This program can provide cash reimbursement for as many as 3 meals and 2 supplemental feedings each day.

USDA Donated Foods for Summer Camps

A number of donated foods¹ are available through State Agencies administering the Food Distribution Program. Food and Nutrition Service Regional Offices will give you the address of your State Food Distribution representative. The kinds of food vary from year to year but may include foods such as:

Dry beans	Salad Oil	Canned Luncheon Meat
Bulgur (cracked wheat)	Shortening	Peanut Butter
Butter	Nonfat Dry Milk	Canned Vegetables
Corn Meal	Rolled Oats	Canned Fruits
Flour	Rice	Dry Split Peas
Grits	Rolled Wheat	Raisins

Special Food Service Program For Children

Day Camps and Summer Recreation Programs may be able to qualify for the Special Food Service Program for Children, authorized under the National School Lunch Act. The program provides cash reimbursement from federal funds up to a maximum rate of 15¢ for each breakfast, 30¢ for each lunch, 30¢ for each supper and 10¢ for supplemental food served between meals.

The Day Camp would have to:

1. Be for children and youth under 21 from low-income areas.
2. Be a non-residential camp.
3. Make suitable application. See page 2 for Agency to contact.
4. Serve meals (breakfast, lunch and supper) and snacks that meet USDA requirements for meal components and minimum portions according to age groups. (See page 7)

¹ Most foods are available on order basis in quantities that can be used without waste.

SPECIAL FOOD SERVICE PROGRAM FOR CHILDREN

For further information on Special Food Service Program: Nonprofit child care institutions in States listed below should contact the State Educational Agency in their Capital city. If your State is not listed below, write to the appropriate Regional Food and Nutrition Service Office.

Alaska
Arizona
California
Colorado
Connecticut
Delaware
District of Columbia
Florida
Guam
Hawaii
Illinois
Indiana

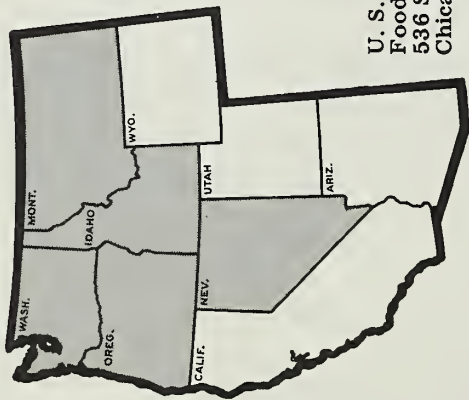
Iowa
Kansas
Kentucky
Louisiana
Maine
Maryland*

*Maryland State Agency is in Baltimore

U. S. Department of Agriculture
Food and Nutrition Service
26 Federal Plaza
New York, N. Y. 10007



U. S. Department of Agriculture
Food and Nutrition Service
536 South Clark Street
Chicago, Illinois 60605



U.S. Department of Agriculture
Food and Nutrition Service
1100 Spring Street, N.W.
Atlanta, Georgia 30309



U. S. Department of Agriculture
Food and Nutrition Service
1100 Commerce Street, Room 5-D-22
Dallas, Texas 75201



U. S. Department of Agriculture
Food and Nutrition Service
630 Sansome Street
San Francisco, California 94111



Program administered
by Regional Office



Trust Territories
Utah
Vermont
West Virginia
Wyoming

Oklahoma
Pennsylvania
Puerto Rico
Rhode Island
Samoa
South Dakota

Massachusetts
Minnesota
Mississippi
New Mexico
New York
North Carolina

SAFE FOOD HANDLING

Just as it is of utmost importance that the children of the Nation be fed nutritious, body-building meals, it is equally important that the meals be free from harmful substances, whether visible or invisible, that may cause illness. Nutrition and sanitation must go hand-in-hand in any good food service operation. Sanitation affects food storage, food preparation, food selection, and food value.



DON'T BE HALF SAFE!

NO FOOD SERVICE OPERATION CAN BE ENTIRELY SAFE WITHOUT:

- Clean Hands — Dirty hands spread germs.
- Clean Service — Dishes, utensils and equipment that are not cleaned and sanitized may spread disease.
- Clean Food — Food from unsafe sources and food that is not kept clean in preparation may be a health hazard.
- Right Temperature — Prepared foods left standing at room temperature may become contaminated and cause illness.
- Healthy Workers — Food workers with colds and other diseases may spread bacteria and pass diseases on to others. Germs from infected cuts and sores may cause food poisoning.



CLEAN HANDS

Be sure hands are washed thoroughly with soap and water before handling foods or utensils.

Be sure all eating and drinking utensils are properly handled during washing and serving.

CLEAN FOOD

Be sure that foods are safe. Buy from a reliable source and use only pasteurized milk, inspected stamped meat, government approved shellfish, etc.

Be sure all vegetables and fruits are thoroughly washed.

Be sure meats such as pork and poultry and foods containing egg are cooked thoroughly. (Standardized procedures and recipes are given in the School Lunch Recipe Card file. See page 13).



RIGHT TEMPERATURE

Be sure foods that are to be served hot, are kept hot (140° F.) and foods that are to be served cold, cold (refrigerated at 40° F.) until they are served.



HEALTHY WORKERS

Be sure all persons handling food meet the health standards set up by local and State health authorities.

Be sure persons with infected cuts or sores, colds and other diseases do not handle food.

SAFE PREPARATION OF PICNIC FOODS

AVOID THE POSSIBILITIES OF FOOD CONTAMINATION AND SPOILAGE:

- Take extra care in the preparation and storage of perishable protein foods.
- When foods are cooked a day ahead of service, handle as little as possible. Cover, chill quickly and refrigerate. To refrigerate *these* foods, divide in small amounts and place in refrigerator so that sufficient air circulates around them.
- Prepare sandwiches and salads from chilled ingredients.
- Cut, slice and mix all ingredients on the day they are eaten.
- Do not use mayonnaise or salad dressings containing egg and milk ingredients to prepare cold lunches.
- Use dressings made of vinegar, lemon juice, tomato products, oil, etc.
- Make sandwiches in small batches.
- Refrigerate sandwiches and salads immediately after preparation or store in insulated containers. Polyfoam or similar materials may be used.
- Do not make sandwiches a day ahead. Bread acts as an insulator and prevents rapid chilling.

USDA DONATED FOODS

When ordering foods:

Give the State distributing agency a realistic estimate of needs. Do not order products that will not actually be used. Notify the State Agency of any donated food remaining at the close of the camping season.

Be prepared to accept delivery and properly store the food whenever it becomes available — even if it is several weeks before camp opens. Camps or recreation programs may have to arrange for transportation of the food from distributing agency warehouses or pay nominal charges for transportation and other services.

Notify the distributing agency *immediately* if donated food is found to be infested or out-of-condition.

Storage of USDA Donated Foods:

Store USDA Donated Foods properly to retain their high quality. A storage area should be provided convenient to the food preparation area.

Follow the storage instructions on the cartons. Write the arrival date on all unopened cases with a wax crayon or pencil. Staple items such as flour, cereal products, and dry beans should be stored in containers (plastic or galvanized).

All small packages or cans should be placed on the shelves in neat, even rows, with similar items together. Unopened cases should be stacked so that the labels are visible.

Some helpful storage reminders are:

1. A thermometer is essential in any room where food stuffs are stored. The correct dry storage temperature is 50° to 70° F., refrigerated storage 32° to 40° F. and freezer storage 0° F. or below.
2. Air should be allowed to circulate over, under and around all food items.
3. Use foods on first-in, first-out basis.
4. Store foods on shelves, dollies or skids — do not put directly on the floor.
5. Store all flour, cereal products, dry beans, etc. in a cool, dry and well ventilated area.
6. Make a record of all food received and used. This can help in accounting for foods and menu planning.

REQUIRED AMOUNTS OF FOOD TO SERVE FOR BOYS AND GIRLS OF SPECIFIED AGES
(Special Food Service Program for Children)

Pattern	1 up to 3 years	3 up to 6 years	6 up to 12 years ¹	12 and over:	
				Girls	Boys ¹
BREAKFAST PATTERN: Juice ² or Fruit Cereal and/or Bread: ³ Cereal Bread ⁴ Milk	1/4 cup 1/4 cup 1/2 slice 1/2 cup	1/2 cup 1/3 cup 1/2 slice 3/4 cup	1/2 cup 3/4 cup 1 slice 1 cup	3/4 cup 3/4 cup 1 slice 1 cup	1 cup 1 cup 2 to 3 slices 1 cup
LUNCH AND/OR SUPPER PATTERN: Meat and/or Alternate: One of the following combinations to give equivalent quantities: Meat, poultry, fish Cheese Eggs ⁵ Cooked dry beans and peas Peanut Butter Vegetable and/or Fruit ⁶ Bread ⁴ Butter or Fortified margarine Milk	1 ounce 1 ounce 1 1/8 cup 1 Tbsp. 1/4 cup 1/2 slice 1/2 teaspoon 1/2 cup	1-1/2 ounces 1-1/2 ounces 1 1/4 cup 2 Tbsp. 1/2 cup 1/2 slice 1/2 teaspoon 3/4 cup	2 ounces 2 ounces 1 1/3 to 1/2 cup 3 to 4 Tbsp. 3/4 cup 1 slice 1 teaspoon 1 cup	3 ounces 3 ounces 1 3/4 cup 4 Tbsp. 1 cup 1 slice 1 teaspoon 1 cup	3 ounces 3 ounces 1 1 to 1-1/4 cup 5 Tbsp. 1-1/4 to 1-1/2 cups 2 to 3 slices 1 to 2 teaspoon 1 cup
AM OR PM SUPPLEMENT: Milk or Juice ² or Fruit or Vegetable Bread and/or Cereal ³ Bread ⁴ Cereal	1/2 cup 1/2 slice 1/4 cup	1/2 cup 1/2 slice 1/3 cup	1 cup 1 slice 3/4 cup	1 cup 1 slice 3/4 cup	1 cup 2 slices 1 cup

¹ When a range in amounts is given, the smaller amount is suggested for younger children.

² Full strength fruit or vegetable juice.

³ Enriched or whole grain.

⁴ Or an equivalent quantity of cornbread, biscuits, rolls or muffins, etc. made of whole grain or enriched meal or flour.

⁵ When egg is served as main dish, use in addition a half portion of meat or alternate for all children except those 1 up to 6 years.

⁶ Must include at least two kinds.

NOTE: Crackers and cookies made of enriched or whole grain meal or flour may be used as bread alternate for am or pm supplements.

MEAL PLANNING FORM

Pattern	Monday	Tuesday
BREAKFAST Juice or Fruit Cereal and/or Bread Milk Other Foods		
A.M. SUPPLEMENT Milk or Juice or Fruit or Vegetable Bread or Cereal		
NOON MEAL Meat and/or Alternate Vegetables and/or Fruits Bread Butter/Margarine Milk Other Foods		
P.M. SUPPLEMENT Milk or Juice or Fruit or Vegetable Bread or Cereal		
EVENING MEAL Meat and/or Alternate Vegetables and/or Fruits Bread Butter/Margarine Milk Other Foods		

IDEAS FOR PREPARATION OF FOOD

FOR DAY CAMPS WITH LIMITED FACILITIES

Children could help prepare vegetables, meats, salads, breads and fruits.

Most children like foods that they can pick up with their fingers.

Some NUTRITIOUS "FINGER FOODS" that may be eaten raw:

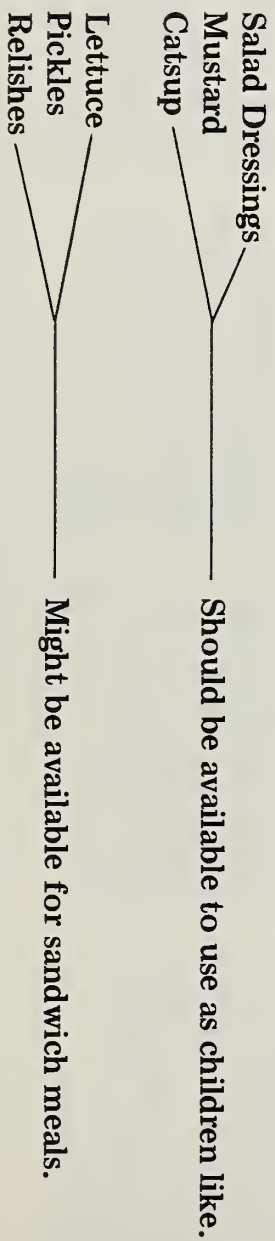
- | | | |
|------------------|--------------------|---------------------|
| Apple Quarters | Dried Peaches | Pineapple Sticks |
| Broccoli Flowers | Green Beans | Radishes |
| Cabbage Wedges | Green Onions | Raisins |
| Carrot Sticks | Green Pepper Rings | Sweet Potato Sticks |
| Cauliflowerets | Melon Wedges | Tomato Wedges |
| Celery Sticks | Orange Sections | Turnip Slices |
| Cheese Cubes | Peach Quarters | Watermelon Cubes |

Older boys and girls can "cook-out" on grills and campfires.

Picnic style meals create interest and provide ways for children to prepare their own foods, such as:

- | | |
|-------------------------|----------------------|
| Baked Beans | Grilled Hamburgers |
| Charcoal Baked Potatoes | Toasted Marshmallows |
| Charcoal Frankfurters | Toasted Rolls |

All Sandwiches should be spread with butter to meet meal requirements.



SUGGESTED MENUS FOR DAY CAMPS WITH LIMITED PREPARATION FACILITIES

(Based on Food Needs of 6-12 Year Old Children)

PATTERN	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
BREAKFAST Juice of Fruit Cereal and/or Bread Milk Other Foods	Applesauce (1/2 cup) Whole Wheat Bread (1 slice) Butter Milk (8 oz.)	Fresh Berries (1/2 cup) Dry Cereal (3/4 cup) Milk (8 oz.)	Grapefruit Sections (1/2 cup) Bread (1 slice) Jelly Milk (8 oz.)	Sliced Peaches (1/2 cup) Dry Cereal (3/4 cup) Milk (8 oz.)	Orange Juice (1/2 cup) Instant Oatmeal (1/2 cup) Muffin, Butter Milk (8 oz.)
A.M. SUPPLEMENT Milk, Juice, Fruit or Vegetable Bread or Cereal	Grape Juice (1 cup) Roll	Vegetable Juice (1 cup) Cinnamon Roll	Apple Juice (1 cup) Doughnut	Milk (1 cup) Raisin Bread (1 slice)	Tomato Juice (1 cup) Cheese Cube Roll
NOON MEAL Meat and/or Alternate Vegetables and/or Fruits Bread Butter/Margarine Milk Other Foods	Spiced Luncheon Meat (1 oz.) Pimento Cheese (1 oz.) Cole Slaw (1/2 cup) Orange (1) Soft Roll Milk (8 oz.)	Sliced Chicken Sandwich (2 oz. chicken) Tomato Wedges (1/4 cup) Buttered Baked Potato (1/4 cup) Pear Halves (1/4 cup) Milk (8 oz.) Oatmeal Cookies (2)	Grilled Hamburger (2 oz.) Roll Tomato, Onion and Lettuce Salad (1/4 cup) Baked Beans (1/2 cup) Milk (8 oz.) Chocolate Chip Cookies (2)	Baked Ham Sandwich (2 oz. Ham) Pickle Chips Carrot and Raisin Salad (1/4 cup) Fruit Pie (1/2 cup fruit) Milk (8 oz.)	Tuna Fish Sandwich (2 oz. Tuna) Pickled Beets (1/2 cup) Assorted Fresh Fruit (1) Milk (8 oz.) Assorted Cookies (2)
P.M. SUPPLEMENT Milk, Juice, Fruit or Vegetable Bread or Cereal	Chocolate Milk (8 oz.) Sweet Roll	Banana (1) Boston Brown Bread (1 slice)	Water Melon Slice (1 cup) Sugar Cookies (2)	Vegetable Juice (3/4 cup) Sliced Pineapple (1/4 cup) Cream Cheese on Whole Wheat Bread (1 slice)	Fresh Pear (1) Milk (1/2 cup) Peanut Butter Cookies (2)
EVENING MEAL Meat and/or Alternate Vegetables and/or Fruits Bread Butter/Margarine Milk Other Foods	Barbecue (2 oz.) Bun French Fried Potatoes (1/2 cup) Celery-Carrot Sticks Fruit Cocktail (1/4 cup) Milk (8 oz.) Plain Cookies (2)	American Cheese Sandwich (2 oz. cheese) Three Bean Salad (1/2 cup) Grapes (1/4 cup) Frosted Cup Cake (1) Milk (8 oz.)	Peanut Butter and Jelly Sandwich (2 T peanut butter) Cheese Sticks (1 oz.) Carrot, Celery and Pepper Sticks (1/4 cup) Apple (1) Milk (8 oz.)	Sliced Chopped Meat (2 oz.) Soft Roll Lettuce and Pepper rings (1/4 cup) Pineapple Sticks (1/2 cup) Milk (8 oz.) Assorted Puddings (1/2 cup)	Grilled Frankfurters (2 oz.) Bun Sauerkraut (1/4 cup) Green Onions, Radishes (1/4 cup) Raisins (1/4 cup) Milk (8 oz.) Toasted Marshmallows

NOTE: All Baked Products Must Be Made With Whole Grain Or Enriched Meal Or Flour

SUGGESTED MENUS FOR DAY CAMPS WITH PREPARATION FACILITIES

(Based on needs of 6-12 Year Old Children)

PATTERN	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
BREAKFAST Juice or Fruit Cereal and/or Bread Milk Other Foods	Orange Juice (1/2 cup) Baked Chopped Meat (1 slice) Buttered Toast (1 slice) Milk (8 oz.)	Canned Plums (1/2 cup) Grits (3/4 cup) Milk (8 oz.)	Tomato Juice (1/2 cup) Scrambled Eggs Toast (1 slice) Jelly Milk (8 oz.)	Orange Juice (1/2 cup) Hot Oatmeal (3/4 cup) Milk (8 oz)	Stewed Prunes (1/2 cup) Hot Biscuit, * Butter Milk (8 oz.)
A.M. SUPPLEMENT Milk, Juice, Fruit or Vegetable Bread or Cereal	Banana (1) Cinnamon Toast (1 slice)	Vegetable Juice (1 cup) Oven Baked Doughnut*	Grape Juice* (1 cup) Wheat Bread* (1 slice)	Peanut Butter Milk (8 oz.) Toasted Muffin (1)	Orange Juice (1 cup) Toasted Biscuit
NOON MEAL Meat and/or Alternate Vegetables and/or , Fruits Bread Butter/Margarine Milk Other Foods	Tomato Soup (1/4 cup) Peanut Butter-Carrot- Raisin Sandwich* (2 T. Peanut Butter, 1/4 cup veg.) Deviled Egg (1/2) Pears (1/4 cup) Cookies (2)* Milk (8 oz.)	Ground Beef and Spaghetti* (2 oz. meat) Buttered Green Beans (1/4 cup) Waldorf Salad (1/2 cup) Bread* (1 slice) Butter Milk (8 oz.)	Tuna Salad (1/2 cup) Potato Chips Celery, Carrot, Green Pepper Pieces (1/4 cup) Bread (1 slice) Butter Peach Crisp (1/2 cup fruit) Milk (8 oz.)	Roast Beef Sandwich (2 oz. beef) Pickle Slice Tossed Salad (1/2 cup) Sweet Potato Pie (1/4 cup) Milk (8 oz)	Oven-Fried Perch Fillets (2 oz.) Oven-Fried Potatoes (1/2 cup) Cabbage-Pepper Slaw (1/4 cup) Roll Butter Milk (8 oz.)
P.M. SUPPLEMENT Milk, Juice, Fruit or Vegetable Bread or Cereal	Milk (8 oz.) Boston Brown Bread* (1 slice)	Watermelon (1 cup) Peanut Butter Cookies (2)	Chocolate Milk (8 oz.) Plain Cookies* (2)	Raw Celery, Carrot, Green Pepper Pieces (1/4 cup) Toast (1 slice) Milk (8 oz.)	Apple Juice (1 cup) Oatmeal Cookies (2)
EVENING MEAL Meat and/or Alternate Vegetables and/or Fruits Bread Butter/Margarine Milk Other Foods	Oven-Fried Chicken* (2 oz.) Corn Pudding* (1/4 cup) Buttered Spinach (1/4 cup) Cantalope (1/4 cup) Bread* (1 slice) Butter Milk (8 oz.)	Bean Soup* (1/2 cup beans) Tomato Salad (1/4 cup) Baked Apple w/Lemon- Raisin Sauce (1/2 cup) Toast Squares (1 slice) Butter Milk (8 oz.)	Baked Canned Chopped Meat (2 oz.) Sweet Potato w/Pineapple (1/2 cup) Buttered Kale (1/4 cup) Cherry Cobbler* (1/4 cup fruit) Bread* (1 slice) Butter Milk (8 oz.)	Beef Stew* (2 oz. meat, 1/4 cup vegetables) Fruit Salad (1/2 cup) Corn Muffin* Butter Milk (8 oz.) Ice Cream	Rice-Cheese Casserole* (2/3 cup) Buttered Green Peas (1/4 cup) Fresh Grapes (1/2 cup) Sweet Roll Butter Milk (8 oz.)

NOTE: All Baked Products Must Be Made With Whole Grain Or Enriched Meal Or Flour.

*Recipe is included

SUGGESTED MENUS FOR DAY CAMPS WITH PREPARATION FACILITIES

(Based on needs of 6-12 Year Old Children)

PATTERN	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
BREAKFAST Juice or Fruit Cereal and/or Bread Milk Other Foods	Orange Juice (1/2 cup) Rolled Wheat (3/8 cup) Buttered Toast (1/2 slice) Milk (8 oz.)	Sliced Peaches (1/2 cup) Dry Cereal (3/4 cup) Milk (8 oz.)	Applesauce (1/2 cup) Raisin Muffin* Butter Milk (8 oz.)	Stewed Prunes (1/2 cup) Whole Wheat Toast (1 slice) Butter Milk (8 oz.)	Grapefruit Juice (1/2 cup) Drop Biscuit* Butter Milk (8 oz.)
A.M. SUPPLEMENT Milk, Juice, Fruit or or Vegetable Bread or Cereal	Stewed Apples (1/2 cup) Buttered Biscuit Milk (1/2 cup)	Tomato Juice (1 cup) Cheese Toast (1 slice)	Chocolate Milk with Marshmallow (8 oz.) Toasted Cornbread	Vegetable Juice (1 cup) Roll	Milk (8 oz.) Cinnamon Toast (1 slice)
NOON MEAL Meat and/or Alternate Vegetables and/or Fruits Bread Butter/Margarine Milk Other Foods	Barbecued Beef* (1/2 cup Beef) Roll Buttered Green Lima Beans (1/2 cup) Cole Slaw (1/4 cup) Milk (8 oz.) Gingerbread with Whipped Topping*	Oven-Fried Liver (2 oz.) Parsley Rice (1/2 cup) Buttered Broccoli (1/4 cup) Waldorf Salad (1/2 cup) Cornbread* Butter Milk (8 oz.)	Beef Patties (2 oz.) French Fried Potatoes (1/2 cup) Pear Halves w/Shredded Cheese Salad (1/4 cup) Bun Milk (8 oz.)	Turkey Sandwich (1 oz. Turkey) Kidney Bean Salad (1/2 cup) Pickled Beets (1/2 cup) Pineapple Slices (1/4 cup) Milk (8 oz.) Plain Cake*	Salmon Loaf (2 oz.) Stewed Tomatoes (1/2 cup) Celery Sticks (1/4 cup) Bread Milk (8 oz.) Chocolate Pudding
P.M. SUPPLEMENT Milk, Juice, Fruit or Vegetable Bread or Cereal	Milk (8 oz.) Plain Cookies* (2)	Milk (8 oz.) Boston Brown Bread* (1 slice)	Orange Juice (1 cup) Toasted Muffin	Milk (8 oz.) Coffee Cake	Assorted Juice (1/2 cup) Fresh Plums (2) Peanut Butter Cookies (2)
EVENING MEAL Meat and/or Alternate Vegetable and/or Fruits Bread Butter/Margarine Milk Other Foods	Chili Con Carne w/Beans* (1/2 cup) Tossed Green Salad* (1/2 cup) Toasted French Bread (1 slice) Butter Berry Pie (1/4 cup fruit) Milk (8 oz.)	Frankfurters (2 oz.) Potato Salad (1/2 cup) Oven Cooked Spinach* (1/4 cup) Bun Milk (8 oz.) Rice Pudding with Raisins	Macaroni and Cheese (1 oz. cheese) Hard Cooked Egg Half Buttered Green Beans (1/2 cup) Bread (1 slice) Peach Cobbler (1/4 cup fruit) Milk (8 oz.)	Oven-Fried Chicken* (2 oz.) Mashed Potatoes (1/4 cup) Buttered Peas (1/2 cup) Fresh Apple (1) Bread (1 slice) Butter Milk (8 oz.)	Turkey Pie* (2 oz. turkey, 1/4 cup vegetable) Biscuit Topping Buttered Corn (1/4 cup) Tossed Green Salad* (1/4 cup) Milk (8 oz.)

NOTE: All Baked Products Must Be Made With Whole Grain or Enriched Meal Or Flour

*Recipe is included

SELECTED RECIPES FROM
"Quality Recipes for Type A School Lunches"

Cereal Products	Page	Main Dishes (Continued)	Page
Biscuits	14	Chicken or Turkey Pie (with Biscuit Topping)	31
Cheese Biscuits		Chili Con Carne with Beans	27
Cornmeal Biscuits		Ground Beef and Spaghetti	28
Drop Biscuits		Oven-Fried Chicken	29
Boston Brown Bread	14	Pork and Sauerkraut	29
Date Boston Brown Bread			
Cornbread	16	Salads	
Muffins	16	Tossed Salad	33
Date Muffins		with Carrots	
Raisin Muffins		with Tomatoes	
White Bread	15	Salad Dressing	
Raisin Bread		French Dressing	32
Wheat Bread		Cream French Dressing	
Desserts		Honey French Dressing	
Cherry Cobbler	17	Tomato French Dressing	
Cream Pudding	18	Sandwiches	
Chocolate Pudding		Barbecued Beef on Roll	34
Peanut Butter Pudding		Barbecued Chicken or Turkey	
Gingerbread	19	Barbecued Lamb or Pork	
Oven-Baked Doughnuts with Frosting	20	Peanut Butter-Carrot-Raisin Sandwich	35
Pastry (For Cobblers and Pies)	18	Peanut Butter-Fig Sandwich	
Vanilla Cookies	24	Soups	
Chocolate Chip Cookies		Bean Soup	36
Coconut Cookies		Frankfurter-Bean Soup	
Raisin Cookies		Split Pea Soup	37
Vanilla Cream Frosting	20	Vegetables	
Chocolate Cream Frosting		Preparing Fresh Vegetables	38
Lemon Cream Frosting		Corn Pudding	39
Orange Cream Frosting			
Whipped Topping	22	How to Calculate	
Yellow Cake	23	The Quantities of Foods Needed	40
Pineapple Upside-Down Cake		How to Reconstitute	
Main Dishes		Nonfat Dry Milk:	
Cooking Dry Beans and Split Peas	25	Non-Instant and Instant	41
Beef Stew	26		
Lamb Stew			
Lamb or Beef Pie			
Cheese-Rice Casserole	30		
Cheese-Ham-Rice Casserole			
Cheese-Luncheon Meat-Rice Casserole			

The complete recipe card file and a guide to quantity buying are available. PA-270 *Food Buying Guide for Type A School Lunches* (\$1.25) and PA-631 *Quantity Recipes for Type A School Lunches* (\$8.) can be ordered from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402. Check or money order should be made payable to the Superintendent of Documents.

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
All-purpose flour ...	4 lb	4 qt	1. Blend dry ingredients 5 minutes in mixer on low speed. Cut in fat. YIELD OF MIX: 5 lb 15 oz (1-1/4 gal).
Nonfat dry milk ...	3-3/4 oz	3/4 cup [▲]	
Baking powder	3 oz	1/2 cup .....	.....
Salt	1 oz	1-1/2 Tbsp .....	.....
Shortening	1 lb 8 oz	3-1/2 cups .....	.....
Water		About 1 qt	2. Add enough water to make a soft dough. 3. Turn out on a lightly floured board, divide into halves, and knead lightly about 1 minute. 4. Roll out to 1/2-inch thickness. Cut with a floured 2-inch biscuit cutter and place on baking sheets or place dough on baking sheets and cut into 2-inch squares. 5. Bake 12 to 15 minutes at 425° F (hot oven).

SERVING: 1 biscuit—provides a serving of bread.

▲Non-instant nonfat dry milk (card A-10).

VARIATIONS

- CHEESE BISCUITS: Add 1 lb (1 qt) grated cheese to blended dry ingredients.
- CORNMEAL BISCUITS: Use only 3 lb (3 qt) all-purpose flour and add 1 lb (3 cups) cornmeal.
- DROP BISCUITS: Increase water to about 1-1/4 qt and portion with spoon or scoop (about 2 Tbsp).

BOSTON BROWN BREAD

Ingredients	100 servings (4 loaves, 25 slices each)		For ____ servings	Directions
	Weights	Measures		
Whole wheat flour...	3 lb 12 oz	3 qt	1. Blend dry ingredients 5 minutes in mixer on low speed. Mix in raisins.
Cornmeal	1 lb 5 oz	1 qt .....	.....
Baking soda	1 oz	2-2/3 Tbsp .....	.....
Salt		2 tsp .....	.....
Raisins	1 lb 4 oz	1 qt .....	.....
Buttermilk (see card A-10)		2 qt	2. Combine buttermilk, molasses, and sugar. Stir into dry ingredients, blending only until dry ingredients are moist and mixture has a rough appearance. 3. Pour into 4 greased loaf pans (about 4 by 10 by 4 inches), 3 lb 8-1/2 oz (1 qt 1-1/4 cups) per pan. 4. Cover pans tightly; steam in compartment steamer at 5 lb pressure 1-3/4 hours.
Molasses	2 lb 14 oz	1 qt .....	.....
Sugar	14 oz	2 cups .....	.....

SERVING: 1 slice—provides a serving of bread.

VARIATION

- DATE BOSTON BROWN BREAD: Use 1 lb 4 oz (3 cups) chopped, pitted dates in place of raisins.

Ingredients	300 servings (10 loaves, 30 slices each)		For ____ servings	Directions
	Weights	Measures		
Compressed yeast ... or Active dry yeast ... Warm water (tem- perature 110° F).	10-1/2 oz or 5 oz	1-3/8 cups ... or 1 cup 1 qt 1-1/3 cups .....	..... ..... .....	<p>NOTE: All ingredients and utensils must be warmed to room temperature.</p> <p>1. Dissolve yeast in warm water.</p>
All-purpose flour ... Nonfat dry milk ... Sugar Salt Shortening, softened. Water (tempera- ture 65° F).	11 lb 10 oz 1 lb 2 oz 3-1/2 oz 1 lb 2 oz	11 qt 2 cups▲ 2-1/2 cups ... 1/3 cup 2-1/2 cups ... 1-3/4 qt .....	..... ..... ..... ..... ..... .....

SERVING: 1 slice—provides a serving of bread.

▲Non-instant nonfat dry milk (card A-10).

VARIATIONS

- WHITE BREAD (using bread flour): Use bread flour in place of all-purpose flour.
- RAISIN BREAD: Increase yeast to 1 lb 5 oz (2-3/4 cups) compressed or 10 oz (2 cups) active dry and add 4 lb 8 oz (3 qt 2-1/2 cups) raisins with the dry ingredients. Bake at 375° F (moderate oven) about 30 minutes.
- WHEAT BREAD: Use equal parts of all-purpose and whole wheat flours. Bake 30 to 35 minutes at 400° F (hot oven).

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
All-purpose flour...	4 lb	4 qt .....	.....	1. Blend dry ingredients 5 minutes in mixer on low speed. YIELD OF MIX: 10 lb 4 oz (2 gal).
Cornmeal	4 lb	3 qt .....	.....
or	or	or		
Corn grits	4 lb	2-3/4 qt .....	.....
Baking powder	5-3/4 oz	1 cup .....	.....
Nonfat dry milk ...	10 oz	2 cups [▲]	
Sugar	1 lb 4 oz	2-3/4 cups ...	.....
Salt	1 oz	1-1/2 Tbsp ...	.....
Eggs, beaten (see note).	2 lb 11 oz	24 large .....	.....	2. Combine eggs, oil, and water. Add to dry ingredients; mix just enough to moisten.
Oil or fat, melted ..	1 lb 8 oz	3 cups .....	.....	3. Pour into 4 greased baking pans (about 12 by 20 by 2 inches), 4 lb 12 oz (2 qt) per pan.
Water		2 qt 2-1/3 cups		4. Bake 20 minutes at 425° F (hot oven).

SERVING: 1 piece, 2 by 3-3/4 inches—provides a serving of bread.

▲Non-instant nonfat dry milk (card A-10).

MUFFINS

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
All-purpose flour ..	5 lb 4 oz	5-1/4 qt	1. Blend dry ingredients 5 minutes in mixer on low speed. YIELD OF MIX: 7 lb 9 oz (1 gal 2-3/4 qt).
Nonfat dry milk ...	10 oz	2 cups [▲]	
Baking powder	5 oz	1 cup less 2 Tbsp.	.....
Sugar	1 lb 5 oz	3 cups .....	.....
Salt	2 oz	3 Tbsp .....	.....
Eggs, beaten	1 lb 2 oz	10 large	2. Combine eggs, oil, and water. Add to dry ingredients and stir only until dry ingredients are moistened and batter has lumpy appearance.
Oil	1 lb 8 oz	3 cups .....	.....
Water		2 qt 1-1/3 cups	.....
				3. Using a No. 20 scoop (3-1/5 Tbsp), portion into greased muffin tins.
				4. Bake at 400° F (hot oven) 20 minutes until light brown.

SERVING: 1 muffin—provides a serving of bread.

▲Non-instant nonfat dry milk (card A-10).

VARIATIONS

- DATE MUFFINS: Mix 2 lb (1-1/4 qt) chopped, pitted dates into the blended dry ingredients.
- RAISIN MUFFINS: Mix 2 lb (1 qt 2-1/2 cups) raisins into the blended dry ingredients.

CHERRY COBLER

FRUIT

Desserts C-9

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
★Frozen red, tart, pitted cherries, thawed (card C-2).	30 lb 8 oz	3-3/4 gal . . . .	.....	1. Drain cherries. Heat liquid.
Cornstarch	1 lb	3-1/2 cups . . . . .	.....	2. Mix dry ingredients; blend gradually into hot liquid. Cook and stir constantly until thickened. Add food coloring and lemon juice. 3. Add cherries to sauce. Pour into 4 baking pans (about 12 by 20 by 2 inches), about 7 lb 8 oz (3-1/4 qt) per pan. 4. Cover with pastry. 5. Bake at 375° F (moderate oven) 45 to 50 minutes until brown.
Sugar	2 lb	1 qt 1/2 cup . . . . .	.....
Salt . . . . .	. . . . .	1 Tbsp . . . . .	.....
Red food coloring (if desired).	. . . . .	1/4 tsp . . . . .	.....
★Lemon juice	13-1/2 oz	1-1/2 cups . . . . .	.....
Unbaked pastry (card C-19).	. . . . .	. . . . .	.....

SERVING: 1/2 cup—provides 1/2 cup fruit.

VARIATION

★a. CHERRY COBLER (using canned fruit): Use 28 lb (3-1/4 gal) canned red, tart, pitted cherries and increase sugar to 6 lb (3 qt 1-1/2 cups). Serving is same as for basic recipe.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Basic recipe		
Frozen red, tart, pitted cherries.	1 30-lb can plus 8 oz . . . . .	.....
Lemons	2 lb (9 medium, size 150) . . . . .	.....
Variation a		
Canned red, tart, pitted cherries.	4-1/3 No. 10 cans . . . . .	.....

PASTRY
(For cobblers or pies)

Desserts C-19

Ingredients	For 100 servings of cobbler or 15 single-crust 9-inch pies		For 200 servings of cobbler or 15 double-crust 9-inch pies		For ____ servings
	Weights	Measures	Weights	Measures	
All-purpose flour	3 lb	3 qt	6 lb	6 qt .....	.....
Salt		1 Tbsp	1-1/4 oz ...	2 Tbsp .....	.....
Shortening	2 lb 4 oz ...	1 qt 1-1/4 cups ..	4 lb 8 oz ...	2 qt 2-1/2 cups ..	.....
Cold water .....	.....	About 2 cups ....	.....	About 1 qt .....	.....

DIRECTIONS

1. Blend flour and salt.
2. Cut in fat until mixture is granular.
3. Add water and mix.
4. FOR COBBLERS, divide in fourths and roll out

on lightly floured board to fit baking pan (about 12 by 20 by 2 inches). Use as required for recipe.
or
FOR PIES, roll out on lightly floured board, using about 7 oz per shell. Line 9-inch pie pans with pastry. Use as required for recipe or prick and bake 15 minutes at 400° F (hot oven).

CREAM PUDDING

Desserts C-13

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Hot milk	2 gal 2-1/2 qt	1. Add sugar and salt to milk; heat to simmering point.
Sugar	2 lb 8 oz	1 qt 1-3/4 cups	.....
Salt .....	.....	2-1/4 tsp .....	.....
Eggs	1 lb 9 oz	14 large	2. Beat eggs; add water, vanilla, and food coloring. Stir mixture slowly into cornstarch. 3. Add egg mixture slowly to milk mixture, stirring constantly. Cook about 6 minutes, continuing to stir, until temperature of mixture has returned to simmering point. 4. Cool quickly, stirring occasionally. 5. Serve with No. 8 scoop (1/2 cup).
Water .....	.....	1 qt 1/2 cup ..	.....
Vanilla	3 oz	1/3 cup .....	.....
Yellow food coloring.	.....	1/2 tsp .....	.....
Cornstarch	1 lb 5 oz	1 qt 2/3 cup ..	.....

SERVING: About 1/2 cup.

VARIATIONS

- a. CHOCOLATE PUDDING: Omit food coloring. Add 12 oz (12 squares) melted bitter chocolate.
- b. COCONUT PUDDING: Add 1 lb 4 oz (2-1/4 qt) flaked coconut after cooking.
- c. PEANUT BUTTER PUDDING: Omit food coloring. Blend 3 lb 8 oz (1-1/2 qt) peanut butter with sugar and salt and stir into milk. Reduce water to 2 cups and cornstarch to 13-1/2 oz (3 cups). Chop 1 lb 9 oz. salted peanuts, and garnish each serving with a teaspoon of nuts.
- d. TAPIOCA PUDDING: Omit food coloring. Use 1 lb 7 oz (1 qt) tapioca in place of cornstarch.

GINGERBREAD

Desserts C-14

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
All-purpose flour ..	4 lb 8 oz	4-1/2 qt .....	.....	1. Blend dry ingredients except sugar.
Cornstarch	7 oz	1-1/2 cups ...	.....
Baking powder	1 oz	2-2/3 Tbsp ...	.....
Baking soda	1 oz	2-2/3 Tbsp ...	.....
Salt .....	.....	2 tsp .....	.....
Cinnamon .....	.....	3 Tbsp .....	.....
Ginger .....	.....	3 Tbsp .....	.....
Shortening	2 lb	1 qt 1/2 cup ..	.....	2. Cream fat and sugar until well blended.
Sugar	2 lb	1 qt 1/2 cup ..	.....	3. Mix in molasses.
Molasses	5 lb 12 oz	2 qt .....	.....
Boiling water .....	.....	2 qt .....	.....	4. Add dry ingredients to creamed mixture alternately with water.
Eggs	1 lb 12-1/2 oz.	16 large .....	.....	5. Beat eggs; add to batter and beat 2 minutes.
				6. Pour into 4 greased baking pans (about 12 by 20 by 2 inches), about 5 lb (2-1/4 qt) per pan. Bake about 30 minutes at 350° F (moderate oven).
				7. Serve with warm lemon sauce, vanilla sauce, hot applesauce, or dust lightly with confectioner's sugar, or frost.

SERVING: 1 piece, 2 by 3-3/4 inches.

OVEN-BAKED DOUGHNUTS WITH FROSTING

Desserts C-18

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Compressed yeast .. or Active dry yeast ... Warm water (tem- perature 110° F). Eggs	5-1/4 oz or 2-1/2 oz 9-1/4 oz	2/3 cup or 1/2 cup 1 cup 5 large .....	..... ..... ..... .....	NOTE: All ingredients and utensils must be warmed to room temperature. 1. Dissolve yeast in warm water. 2. Beat eggs and add to yeast mixture.
All-purpose flour .. Sugar Salt Nonfat dry milk ... Nutmeg Cinnamon Rolled wheat, ground. Shortening, softened. Water (tempera- ture 65° F).	2 lb 12 oz 10 oz 1 oz 6-1/4 oz 8-1/2 oz 10 oz	2-3/4 qt 1-1/2 cups ... 1-1/2 Tbsp ... 1-1/3 cups▲ .. 1 Tbsp 2 tsp 2 cups 1-1/2 cups ... 3 cups .....	..... ..... ..... ..... ..... ..... ..... ..... .....
Orange cream frosting (see card C-26c).	.....	2 qt .....	.....	9. Glaze or ice with frosting.

SERVING: 1 doughnut.

▲Non-instant nonfat dry milk (card A-10).

Ingredients	About 2 quarts		For ____ servings	Directions
	Weights	Measures		
Butter or margarine.	12 oz	1-1/2 cups . . . . .	. . . . .	1. Cream fat until light and fluffy.
Confectioner's sugar.	4 lb	3-3/4 qt . . . . .	. . . . .	2. Add confectioner's sugar and water alternately. Beat well after each addition.
Boiling water . . . . .	. . . . .	1 cup . . . . .	. . . . .
Salt . . . . .	. . . . .	1/2 tsp . . . . .	. . . . .	3. Blend in salt and vanilla. Beat until light and fluffy.
Vanilla	1-1/2 oz	3 Tbsp . . . . .	. . . . .	YIELD OF FROSTING: Frosting for 2 sheet cakes (about 18 by 26 inches) or 200 cupcakes.

VARIATIONS

- CHOCOLATE CREAM FROSTING:** Blend 7 oz (2 cups) cocoa with sugar, increase water to 1-1/4 cups, and reduce vanilla to 1 oz (2 Tbsp).
- LEMON CREAM FROSTING:** Use 1 oz (2 Tbsp) lemon extract in place of vanilla.
- ORANGE CREAM FROSTING:** Reduce water to 3/4 cup and use 1/2 cup frozen orange juice concentrate (thawed) and 1 tsp lemon juice in place of vanilla.
- PEANUT BUTTER CREAM FROSTING:** Use 12 oz (1-1/3 cups) peanut butter in place of butter or margarine; increase water to 1-2/3 cups and reduce vanilla to 1/2 oz (1 Tbsp).
- PINEAPPLE CREAM FROSTING:** Use 1 oz (2 Tbsp) pineapple extract in place of vanilla. If desired, drained crushed pineapple may be added to taste.

WHIPPED TOPPING

Desserts C-27

Ingredients	1 gallon		For ____ servings	Directions
	Weights	Measures		
Gelatin .....	.....	1-1/3 Tbsp ..	.....	1. Soften gelatin in 1/2 cup water.
Cold water .....	.....	1/2 cup .....	.....
Nonfat dry milk ...	8 oz	1-2/3 cups▲ ..	.....	2. Sprinkle dry milk over 1-3/4 cups water and beat until smooth. Scald in double boiler about 6 minutes. Add gelatin. Cool.
Water .....	.....	1-3/4 cups ...	.....
★Lemon juice	4-1/2 oz	1/2 cup .....	.....	3. Beat in fruit juices, a small amount at a time. Store in refrigerator overnight.
★Orange juice	4-1/2 oz	1/2 cup .....	.....
Sugar	8 oz	1 cup 2 Tbsp ..	.....	4. Whip chilled mixture in mixer on high speed until very stiff. Fold in sugar, salt, and vanilla. Chill until ready to use. 5. Serve over fruit gelatin, gingerbread, or puddings.
Salt .....	.....	1 tsp .....	.....
Vanilla .....	.....	1-1/3 Tbsp ..	.....

SERVING: About 2 tablespoons.

▲Non-instant nonfat dry milk (card A-10).

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 1 gallon recipe	For ____ serving recipe
Lemons	10-1/2 oz (3 medium, size 150) ..	.....
Oranges	9 oz (2 medium, size 163) .....	.....

YELLOW CAKE

Desserts C-28

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
All-purpose flour ..	3 lb 12 oz	3-3/4 qt	1. Blend dry ingredients 5 minutes in mixer on low speed.
Sugar	3 lb 15 oz	2-1/4 qt ....	.....
Nonfat dry milk ...	5 oz	1 cup▲ .....	.....
Baking powder	3 oz	1/2 cup .....	.....
Salt	1 oz	1-1/2 Tbsp ..	.....
Shortening	1 lb 12 oz	1 qt	2. Add fat, eggs, vanilla, and half the water to dry ingredients. Blend 1/2 minute on low speed. Beat 5 minutes on medium speed. 3. Add remaining water; blend 1/2 minute on low speed. Beat 2 minutes on medium speed. 4. Pour batter into 2 greased sheet pans (about 18 by 26 inches), about 7 lb 2 oz (1 gal) per pan. 5. Bake at 350° F (moderate oven) about 35 minutes until done.
Eggs	1 lb 12-1/2 oz	16 large .....	.....
Vanilla	1 oz	2 Tbsp .....	.....
Water .....	.....	1-1/2 qt ....	.....

SERVING: 1 piece, 2-1/2 by 3-1/4 inches.

▲Non-instant nonfat dry milk (card A-10).

VARIATION

- ★a. PINEAPPLE UPSIDE-DOWN CAKE: Pour 6 oz (3/4 cup) melted butter or margarine in each of 4 baking pans (about 12 by 20 by 2 inches) and cover with 1 lb (2-1/4 cups, packed) brown sugar. Place in each pan 1 lb 14 oz (3-1/4 cups) drained crushed pineapple. Pour 3 lb 9 oz (about 2 qt) cake batter into each pan. Bake at 350° F (moderate oven) about 50 minutes until done. Remove from oven. Invert each portion as served. One serving is a piece, 2 by 3-3/4 inches.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Variation a Canned crushed pineapple	1-1/2 No. 10 cans .....	.....

VANILLA COOKIES

Desserts C-25

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
All-purpose flour .. Baking powder Salt	2 lb 4 oz 1-1/4 oz	2-1/4 qt 3-1/3 Tbsp .. 2 tsp .....	..... ..... .....	1. Blend dry ingredients except sugar.
Butter or margarine. Sugar	1 lb 8 oz 2 lb	3 cups 1 qt 1/2 cup ..	..... .....	2. Cream fat and sugar until well blended.
Eggs	14 oz	8 large .....	.....	3. Add eggs and vanilla; beat to blend.
Vanilla	1 oz	2 Tbsp .....	.....	4. Add dry ingredients. Blend. 5. Using No. 40 scoop (1-3/5 Tbsp), place cookies on greased baking sheets. 6. Bake at 375° F (moderate oven) about 12 minutes until light brown.

SERVING: 1 cooky.

VARIATIONS

- CHOCOLATE CHIP COOKIES:** Add 1 lb 11 oz (1 qt) chocolate chips with flour mixture.
- COCONUT COOKIES:** Add 12 oz (1 qt 1-1/3 cups) shredded coconut with flour mixture.
- RAISIN COOKIES:** Add 1 lb 4 oz (3-1/3 cups) chopped seedless raisins with flour mixture.

COOKING DRY BEANS

Main Dishes D-1

DRY BEANS—KIND	Amount of dry beans (9 lb 4 oz)	Approximate amount of boiling water ¹	Approximate cooking time ¹
Beans, blackeye beans or peas	1 gal 1—1/4 qt	3—3/4 gal	1/2 hour
Beans, red (kidney or pinto)	1 gal 1—1/4 qt	3—3/4 gal	2 hours
Beans, lima:			
Large	1—1/2 gal	3—3/4 gal	1 hour
Small	1 gal 1—1/4 qt	3—3/4 gal	1 to 1—1/2 hours
Beans, white:			
Great northern	1 gal 1—1/4 qt	3—3/4 gal	1 to 1—1/2 hours
Pea beans (navy or small white)	1 gal 1—1/4 qt	3—3/4 gal	2 to 2—1/2 hours

DIRECTIONS

- Sort and wash beans.
- Add beans and 2¾ oz (¼ cup) salt to boiling water.
- Boil 2 minutes.
- Remove from heat. Cover and let soak 1 hour or, if more convenient, cool and let beans stand overnight in refrigerator.
- To season—add 2 lb bacon, pork jowls, or salt pork, diced, or 3 to 5 lb ham bones.

NOTE: *Precook meat in boiling water as needed to assure doneness before combining with beans.*

- Cook beans in soaking water for the time indicated or until tender. Begin counting cooking time when water returns to boiling point. Add boiling water if beans become dry.

YIELD OF COOKED BEANS: About 3 gal 2 cups—100 servings (½ cup each).

¹Amount of water and cooking time will depend on age and variety of beans and type of water used. To shorten cooking time add 1 Tbsp baking soda to the 3—3/4 gal of water used for the 2-minute boil.

Cooking Split Peas

Ingredients	100 servings, ½ cup each		For ____ servings	Directions
	Weights	Measures		
Dry split peas	10 lb	1 gal 1—1/4 qt. . . . .	. . . . .	1. Sort and wash peas.
Boiling water . . . . .	. . . . .	2—3/4 gal		2. Add peas to boiling water. Boil 2 minutes. Cover and let soak 30 minutes.
Salt	2—3/4 oz	1/4 cup . . . . .	. . . . .	3. Add salt.
				4. Divide peas and soaking liquid into 4 saucepans or stockpots (see note).
				5. Bring to boiling point. Simmer 20 minutes. Do not stir.
				or
				Place peas and soaking liquid in 4 baking pans (about 12 by 20 by 2 inches). Cover pans tightly. Bake at 350° F (moderate oven) 35 minutes.
				YIELD OF COOKED PEAS: About 3 gal 2 cups.

NOTE: Split peas are cooked in small batches to retain their shape and to avoid mashing.

BEEF STEW

Meat/Vegetable

Main Dishes D-16

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Boneless stew beef, cubed. Garlic, minced Water	19 lb 4 oz ..... ..... .....	..... 4 cloves 3 gal .....	..... ..... .....	1. Brown beef and garlic. 2. Add water and simmer, covered, about 1 hour until meat is tender.
All-purpose flour .. Salt Pepper	1 lb 12 oz 4 oz	1-3/4 qt 1/4 cup 2 Tbsp 1 Tbsp .....	..... ..... .....	3. While meat is cooking, remove about 1/2 gal of broth and allow to cool slightly. 4. Stir broth into dry ingredients. Pour mixture into simmering meat, stirring constantly, until thickened.
★Potatoes, diced (1-inch cubes). ★Carrots, diced (1/2-inch cubes). ★Celery, cut in 1-inch pieces. ★Onions, quartered .	8 lb 8 oz 7 lb 4 lb 2 lb	1-1/2 gal 1 gal 1-1/2 qt 3-1/2 qt 1 qt 2-3/4 cups .....	..... ..... ..... .....	5. Steam potatoes and carrots 18 minutes at 5 lb pressure and celery and onion 13 minutes until vegetables are tender. 6. Add to meat mixture; combine carefully.

SERVING: 1 cup—provides 2 ounces cooked lean meat and 1/2 cup vegetable.

VARIATIONS

- LAMB STEW: Use 19 lb 4 oz boneless stew lamb in place of beef.
- LAMB OR BEEF PIE (with biscuit topping): Steam vegetables until almost tender. Add to meat mixture; combine carefully. Place hot stew mixture in 4 baking pans (about 12 by 20 by 2 inches), about 13 lb 4 oz (1 gal 2-1/4 qt) per pan. Top with biscuits (card B-3) and bake 12 to 15 minutes at 425° F (hot oven). A serving (1 cup plus 1 biscuit) provides 2 ounces cooked lean meat, 1/2 cup vegetable, and a serving of bread.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Potatoes	10 lb 8 oz .....	.....
Carrots, without tops	8 lb 10 oz .....	.....
Celery	5 lb 6 oz .....	.....
Mature onions	2 lb 4 oz .....	.....

CHILI CON CARNE WITH BEANS

Meat and Alternate

Main Dishes D-24

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Ground beef ★Onions chopped ..	9 lb 1 lb .....	..... 2-2/3 cups ...	..... .....	1. Brown beef lightly. Add onions and cook until onions are clear, but not brown. Drain.
★Tomato puree Bean liquid and water.	9 lb	1 gal 2 qt .....	..... .....	2. Add puree and liquid; simmer until beef is tender.
All-purpose flour .. Water	4 oz	1 cup 1 cup .....	..... .....	3. Make a paste of flour and water; add to beef mixture, stirring constantly.
★Cooked kidney or pinto beans, drained (card D-1). Salt Chili powder	10 lb 6 oz 2 oz	1 gal 2-1/4 qt 3 Tbsp 1/3 cup .....	..... ..... .....	4. Add beans and seasonings. 5. Cover and cook 1 to 1-1/2 hours until flavors are well blended and mixture is thickened, stirring occasionally to prevent sticking.

SERVING: About 1/2 cup—provides the equivalent of a 2-ounce serving of cooked lean meat.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Mature onions	1 lb 2 oz .....	.....
Canned tomato puree	1-1/3 No. 10 cans .....	.....
Dry kidney or pinto beans	4 lb 10 oz .....	.....

GROUND BEEF AND SPAGHETTI

Meat and Alternate

Main Dishes D-30

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Spaghetti	4 lb	1 gal 1-3/4 qt	1. Cook spaghetti (card B-1 through step 3). Drain.
Boiling water .....	.....	4 gal .....	.....
Salt	1 oz	1-1/2 Tbsp ..	.....
Ground beef	14 lb 10 oz	2. Brown beef lightly. Add onions and cook until onions are clear, but not brown. Drain.
★Onions, chopped ..	3 lb	2 qt .....	.....
Cheese, shredded ..	2 lb	2 qt	3. Blend cheese with meat mixture. Add remaining ingredients. 4. Stir in spaghetti. 5. Reheat and serve.
★Tomato paste	4 lb 12 oz	2 qt .....	.....
★Tomato puree	3 lb 6 oz	1-1/2 qt ....	.....
Salt	5-1/4 oz	1/2 cup .....	.....
Sugar .....	.....	2 Tbsp .....	.....

SERVING: About 2/3 cup—provides the equivalent of a 2-ounce serving of cooked lean meat.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Mature onions	3 lb 6 oz .....	.....
Canned tomato paste	2/3 No. 10 can .....	.....
Canned tomato puree	1/2 No. 10 can .....	.....

OVEN-FRIED CHICKEN

Meat

Main DishesD—39

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Ready-to-cook frying chicken (cut-up). or Chicken breast halves. or Chicken drumsticks or Chicken thighs	41 lb 12 oz . . . or 30 lb 4 oz or 18 lb 8 oz or 20 lb . . . . .	. . . . . 100 pieces . . . or 100 pieces . . . or 100 pieces . . .	. . . . . . . . . . . . . . . . . . . .	1. Thaw frozen chicken (card D—7). Wash and dry chicken parts.
All-purpose flour . . Salt	1 lb 8 oz 2 oz	1—1/2 qt 3 Tbsp . . . . .	. . . . . . . . . .	2. Roll chicken parts with mixture of flour and salt. Place in a single layer on greased sheet pans (about 18 by 26 inches).
Oil or fat, melted . .	2 lb 8 oz	1—1/4 qt . . . . .	. . . . .	3. Pour fat over chicken and bake at 400° F (hot oven) 55 minutes until golden brown.

SERVING: 1/2 chicken breast *or* 1 drumstick with a wing or back *or* 1 thigh with a wing or back—provides 2 ounces or more cooked chicken meat *or*

SERVING: 1 drumstick *or* 1 thigh—provides about 1—1/2 ounces cooked chicken meat. (See Food Buying Guide for Type A School Lunches, PA—270).

PORK AND SAUERKRAUT

Meat/Vegetable

Main Dishes D—44

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Boneless fresh pork shoulder (picnic), sliced.	20 lb	100 slices (about 3 oz each).	. . . . .	1. Place pork slices in 4 baking pans (about 12 by 20 by 2 inches).
★Sauerkraut, drained.	21 lb 4 oz	3—1/4 gal . . . .	. . . . .	2. Spread sauerkraut over pork slices, 5 lb 5 oz (3—1/4 qt) per pan.
All-purpose flour . . Sauerkraut liquid . .	2 oz	1/2 cup 2 qt . . . . .	. . . . . . . . . .	3. Blend flour with 1 cup of liquid. Add remaining liquid to flour mixture and pour over sauerkraut and pork, 2 cups per pan. 4. Cover pans and bake 2 hours at 350° F (moderate oven).

SERVING: 1 slice plus 1/2 cup sauerkraut—provides 2 ounces cooked lean meat and 1/2 cup vegetable.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Canned sauerkraut	4—1/4 No. 10 cans . . . . .	. . . . .

CHEESE-RICE CASSEROLE

Meat Alternate

Main Dishes D-19

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Cheese, shredded .. Hot milk	10 lb	2-1/2 gal 1-1/4 gal ....	..... .....	1. Add cheese to milk. Stir to blend.
Eggs ★Cooked rice (card B-2, using half the cooking time specified). Stuffed olives, chopped.	2 lb 3-1/2 oz . 16 lb 8 oz 1 lb 4 oz	20 large 2-3/4 gal 3-3/4 cups ...	..... ..... .....	2. Beat eggs; combine with rice. Add olives. 3. Pour cheese sauce over rice mixture and mix well. 4. Place in 4 greased baking pans (about 12 by 20 by 2 inches), about 9 lb 10 oz (1 gal 1/2 qt) per pan. 5. Bake at 350° F (moderate oven) 40 minutes until light brown.

SERVING: About 2/3 cup—provides the equivalent of a 2-ounce serving of cooked lean meat.

VARIATIONS

- ★a. **CHEESE-HAM-RICE CASSEROLE:** Use only 7 lb (1-3/4 gal) shredded cheese and add 3 lb (2 qt 1-1/2 cups) coarsely chopped cooked ham.
- b. **CHEESE-LUNCHEON MEAT-RICE CASSEROLE:** Use only 7 lb (1-3/4 gal) shredded cheese and add 3 lb (2-1/4 qt) diced luncheon meat.
- ★See Marketing Guide.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Basic recipe Rice	5 lb 8 oz .....	.....
Variation a Cured ham, without bone	3 lb 15 oz .....	.....

CHICKEN OR TURKEY PIE (With biscuit topping)

Meat/Vegetable/Bread

Main Dishes D-22

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
★Carrots, diced	3 lb	2 qt 1-1/2 cups	1. Cook carrots and celery together in boiling salted water 15 minutes. Drain. Reserve liquid for gravy.
★Celery, diced	3 lb	2 qt 3-1/2 cups	.....
Water . . . . .	.....	2 qt 1-1/2 cups	.....
Salt . . . . .	.....	1-3/4 tsp . . . .	.....
All-purpose flour ..	2 lb 4 oz	2-1/4 qt	2. Blend flour, salt, and fat; stir in hot liquid. Cook and stir constantly until thickened.
Salt	2-3/4 oz	1/4 cup . . . . .	.....
Butter or margarine, melted.	2 lb 4 oz	1 qt 1/2 cup ..	.....
Broth, skimmed, and hot vegetable liquid.	.....	2-1/4 gal . . . .	.....
★Cooked green peas, drained.	2 lb 8 oz	1 qt 2-3/4 cups	3. Combine gravy, vegetables, and chicken or turkey. 4. Placed in 4 greased baking pans (about 12 by 20 by 2 inches), about 10 lb 4 oz (4-3/4 qt) per pan. 5. Bake 30 minutes at 425° F (hot oven). 6. Remove from oven. Top with biscuits. 7. Bake 12 to 15 minutes at 450° F (very hot oven).
★Onions, chopped ..	1 lb	2-2/3 cups . . .	.....
★Cooked chicken or turkey, diced.	12 lb 8 oz	2-1/2 gal . . . .	.....
Unbaked biscuits (card B-3).	.....	100 . . . . .	.....

SERVING: 2/3 cup plus 1 biscuit—provides 2 ounces cooked chicken or turkey meat, 1/4 cup vegetable, and a serving of bread.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Carrots, without tops	3 lb 11 oz . . . . .	.....
Celery	4 lb . . . . .	.....
Canned green peas	2/3 No. 10 can . . . . .	.....
Mature onions	1 lb 2 oz . . . . .	.....
Ready-to-cook chicken	40 lb 6 oz . . . . .	.....
or	or	
Ready-to-cook turkey	33 lb 14 oz . . . . .	.....

FRENCH DRESSING

Salad Dressings F-2

Ingredients	1 gallon		For ____	Directions
	Weights	Measures		
Dehydrated onion flakes.	2-1/4 oz	1 cup	1. Soak onion flakes in water 15 minutes. Drain flakes; discard water. Chop flakes and place in a bowl; add garlic salt. Mash flakes with the back of a spoon.
Water .....	.....	2 cups .....	.....
Garlic salt .....	.....	1/4 cup .....	.....
Paprika	2-2/3 Tbsp	2. Add dry ingredients to onion mixture. Mix well.
Dry mustard .....	.....	3-1/3 Tbsp ..	.....
Sugar	4 oz	1/2 cup 1 Tbsp	.....
Worcestershire sauce.	1/2 tsp	3. Blend in remaining ingredients. 4. Store in refrigerator. 5. Shake before using.
Tabasco sauce .....	.....	4 drops .....	.....
Salad oil	5 lb 6 oz	2-3/4 qt ....	.....
Vinegar .....	.....	1 qt 1-1/3 cups	.....

VARIATIONS

- a. CREAM FRENCH DRESSING: For 1 gallon dressing, add 2 lb 4 oz (1 qt) evaporated milk to 3 qt French dressing.
- b. HONEY FRENCH DRESSING: Use 1/2 cup 1 Tbsp honey in place of sugar.
- ★c. TOMATO FRENCH DRESSING: For 1 gallon dressing, add 2 lb 7 oz (1 qt) catsup to 3 qt French dressing.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 1-gallon recipe	For _____ recipe
Variation c Catsup	1/3 No. 10 can .....	.....

TOSSED SALAD

Salads E-18

Vegetable

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
★Head lettuce	4 lb	1. Tear lettuce into 1-inch pieces (card E-1). 2. Combine all vegetables; cover and chill.
★Spinach, chopped	1 lb	2 qt	
★Onions, chopped	12 oz	2 cups	
★Cucumbers, pared, diced.	4 lb 12 oz	3-1/4 qt	
★Radishes, sliced	2 lb	2 qt	
French dressing (card F-2).	1 qt	3. Serve with dressing.

SERVING: 1/2 cup—provides 1/2 cup vegetable.

VARIATIONS

- ★a. TOSSED SALAD WITH CARROTS: Use 2 lb (2 qt) shredded carrots in place of radishes.
- ★b. TOSSED SALAD WITH TOMATOES: Use 5 lb 12 oz (1 gal) cubed tomatoes in place of cucumbers.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Basic recipe		
Head lettuce (see note)	5 lb 8 oz . . . . .	. . . . .
Spinach, untrimmed (see note).	1 lb 6 oz . . . . .	. . . . .
Mature onions	13-1/2 oz . . . . .	. . . . .
Cucumbers	6 lb 10 oz . . . . .	. . . . .
Radishes, without tops	2 lb 3-1/2 oz . . . . .	. . . . .
Variation a		
Carrots, without tops (see note).	2 lb 7 oz . . . . .	. . . . .
Variation b		
Tomatoes	6 lb 6 oz . . . . .	. . . . .

NOTE: Lettuce, spinach, and carrots for salad, Food Buying Guide for Type A School Lunches, PA-270.

BARBECUED BEEF ON ROLL

Meat/Bread

Sandwiches G-2

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Oil or fat, melted .. Vinegar Water ★Catsup Brown sugar ★Onions, chopped .. ★Celery, chopped .. Dry mustard Salt	4 oz 5 lb 10 oz 7 oz 12 oz 2 lb 2 oz	1/2 cup 1-1/4 cups 1-1/2 qt 2-1/4 qt 1 cup, packed .. 2 cups 1 qt 3-1/2 cups 1/4 cup 3 Tbsp .....	.....	1. Combine fat, liquids, catsup, sugar, vegetables, and seasonings. Heat thoroughly but do not cook enough to soften vegetables.
★Cooked beef, coarsely chopped.	12 lb 8 oz	2-1/2 gal .....	.....	2. Add beef. Reheat.
Hamburger rolls ...	.....	100 .....	.....	3. Cut rolls in half and toast, if desired. 4. Portion filling with No. 12 scoop (1/3 cup) on bottom half of each roll; top with other half of roll. Serve hot.

SERVING: 1 sandwich—provides 2 ounces cooked lean meat and a serving of bread.

VARIATIONS

- ★a. **BARBECUED CHICKEN OR TURKEY:** Use 12 lb 8 oz (2-1/2 gal) chopped cooked chicken or turkey in place of beef and broth in place of water.
- ★b. **BARBECUED LAMB OR PORK:** Use 12 lb 8 oz (2-1/2 gal) chopped cooked lamb or pork in place of beef.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Catsup	3/4 No. 10 can .....	.....
Mature onions	13-1/2 oz .....	.....
Celery	2 lb 11 oz .....	.....
Meat or poultry	Use amount specified for 100 servings in Food Buying Guide, PA-270.	.....

PEANUT BUTTER-CARROT-RAISIN SANDWICH

Meat Alternate/Vegetable and Fruit/Bread

Sandwiches G—5

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Peanut butter Butter or margarine, softened. Salt	7 lb 4 oz 2 lb 4 oz 1 oz	3 qt 1/2 cup 1 qt 1/2 cup 1—1/2 Tbsp . . . . .	. . . . . . . . . . . . . . .	1. Blend peanut butter, fat, and salt in mixer on low speed.
Raisins ★Carrots, shredded .	5 lb 4 oz 3 lb	1 gal 1 cup 3 qt . . . . .	. . . . . . . . . .	2. Grind raisins and mix with carrots. 3. Blend carrots and raisins with peanut butter mixture.
★White bread . . . . .	. . . . .	200 slices . . . . .	. . . . .	4. To prepare sandwiches see card G—1. 5. Portion filling with No. 16 scoop (1/4 cup).

SERVING: 1 sandwich—provides 2 tablespoons peanut butter, 1/4 cup vegetable and fruit, and a serving of bread.

VARIATION

- ★a. PEANUT BUTTER-FIG SANDWICH: Omit salt, raisins, and carrots. Chop 4 lb (2 qt) drained canned figs. Mix chopped figs, 7 lb 4 oz (3 qt 1/2 cup) peanut butter, 2 lb 4 oz (1 qt 1/2 cup) softened butter or margarine, and 1—3/4 cups fig juice. Portion with No. 16 scoop (1/4 cup) onto bread. Top with bread slice. One sandwich provides 2 tablespoons peanut butter and a serving of bread.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Basic recipe Carrots, without tops White bread (3/8-inch-thick slice). Variation a Canned figs	3 lb 11 oz 5—3/4 sandwich loaves (2 lb each) 1—1/8 No. 10 cans . . . . .	. . . . .. . . . .. . . . .

BEAN SOUP

Meat Alternate

Soups I-1

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Dry beans	9 lb 4 oz	1 gal 1-1/4 qt	1. Soak beans in water with baking soda added (card D-1 through step 4).
Water .....	.....	3-3/4 gal .....	.....
Baking soda .....	.....	1 Tbsp .....	.....
Ham bones	5 lb	2. Add ham bones, onions, seasonings, and water to soaked beans and water. Cook covered 1-1/2 hours. Mash beans if desired.
★Onions, chopped ..	2 lb 10 oz	1-3/4 qt .....	.....
Sugar .....	.....	2 Tbsp .....	.....
Salt	5-1/4 oz	1/2 cup .....	.....
Celery salt .....	.....	1/4 cup .....	.....
Water .....	.....	2-1/4 gal .....	.....
All-purpose flour ..	10 oz	2-1/2 cups	3. Blend flour and water and add to soup. Simmer 10 minutes, stirring occasionally.
Water .....	.....	3 cups .....	.....
				4. Remove ham bones.

SERVING: 1 cup—provides 1/2 cup cooked dry beans.

VARIATION

- a. FRANKFURTER-BEAN SOUP: Use only 7 lb (1 gal) beans and, a few minutes before serving, add 3 lb (2-1/2 qt) sliced frankfurters to soup. Reheat and serve. One cup provides the equivalent of a 2-ounce serving of cooked lean meat.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Mature onions	2 lb 15 oz .....	.....

SPLIT PEA SOUP

Soups I—8

Meat Alternate

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
Dry split peas	10 lb	1 gal 1—1/4 qt	1. Simmer all ingredients 2 hours or until desired consistency. 2. Remove ham bones before serving.
Water .....	.....	5—1/4 gal .....	.....
Ham bones	5 lb .....	.....	.....
★Carrots, ground ...	1 lb 4 oz	1—1/4 qt .....	.....
★Onions, ground ...	3 lb	2 qt .....	.....
Bay leaves .....	.....	2 .....	.....
Salt	3—1/2 oz	1/3 cup .....	.....
Celery salt	1/4 cup	

SERVING: 1 cup—provides 1/2 cup cooked dry peas.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Carrots, without tops	1 lb 8—1/2 oz .....	.....
Mature onions	3 lb 6 oz .....	.....

Prepare fresh vegetables either for serving raw or for cooking as shown below. Wash greens in one or more lots of tap water until there is no sand on the leaves. Lift greens out of water instead of pouring off water. If insects are present in broccoli, cauliflower,

or greens, soak the vegetable in cold salted water for ½ hour and drain them before serving raw or before cooking.

For amount to purchase, see Food Buying Guide for Type A School Lunches, PA-270.

DIRECTIONS FOR PREPARING

ASPARAGUS SPEARS—Break off tough stalk ends. Wash. If sandy under scales, scrape off scales.

BEANS, BLACK EYE BEANS OR PEAS—Shell. (Scald pods to make shelling easier.) Rinse.

BEANS, GREEN OR WAX—Wash. Trim ends; remove any strings. Cut or break into 1-inch pieces.

BEANS, LIMA—Shell. (Scald pods to make shelling easier.) Rinse.

BET GREENS—Wash thoroughly. Sort; cut off tough stems.

BETS—Remove tops, leaving a 2-inch stem on beets. Wash. Do not pare or remove roots until beets are cooked.

BROCCOLI SPEARS—Cut off tough stalk ends. Wash. Cut broccoli lengthwise, if thick to speed cooking.

BRUSSELS SPROUTS—Remove discolored outer leaves. Wash.

CABBAGE—Remove discolored outer leaves. Wash. Quarter and core. Crisp in cold water, if wilted. Cut in wedges or shred.

CARROTS—Wash. Scrape or pare. Cut as desired.

CAULIFLOWER—Remove outer leaves and stalks. Break into florets. Wash.

CELERY—Trim. Wash. Cut as desired.

CHARD—Wash thoroughly. Sort; cut off tough stems.

COLLARDS—Wash thoroughly. Sort; strip leaves from tough stems.

CORN ON COB—Husk; remove silks. Rinse; do not allow to stand in water.

EGGPLANT—Wash. Pare and cut in pieces or slices.

KALE—Wash thoroughly. Sort; strip leaves from tough stems.

MUSTARD GREENS—Wash thoroughly. Sort; cut off tough stems.

OKRA—Wash. Remove stem ends or cook whole.

ONIONS, MATURE—Peel; rinse. Quarter if large, or cut as desired.

PARSNIPS—Wash. Pare. Quarter lengthwise and cut as desired.

PEAS, GREEN—Shell. Rinse.

POTATOES—Scrub. Cook in skins or pare. Remove eyes; cut large potatoes to serving size.

PUMPKIN—Wash. Cut in half; remove seeds, fiber, and peel. Cut in pieces. (If peel is hard and tough, soften by steaming or boiling 10 minutes.)

RUTABAGAS—Wash. Pare and cut as desired.

SPINACH—Wash thoroughly. Sort; cut off tough stems.

SQUASH, SUMMER—Wash. Trim and cut as desired.

SQUASH, WINTER—Wash. Cut in half; remove seeds, fiber, and peel. Cut into pieces. (If peel is hard and tough, soften by steaming or boiling 8 to 10 minutes.)

SWEETPOTATOES—Scrub. Sort for size.

TURNIP GREENS—Wash thoroughly. Sort; cut off tough stems.

TURNIPS—Wash. Pare and cut as desired.

CORN PUDDING

Vegetable

Vegetables J-11

Ingredients	100 servings		For ____ servings	Directions
	Weights	Measures		
★Canned whole kernel corn, drained (reserve liquid).	9 lb 9 oz	1 gal 2-1/4 qt	. . . . .	1. Divide corn and green peppers into 4 greased baking pans (about 12 by 20 by 2 inches).
★Green peppers, chopped.	5-1/4 oz	1 cup	
Nonfat dry milk . . .	2 lb	1 qt 2-1/3 cups▲.	. . . . .	2. Sprinkle dry milk over liquid; beat until smooth.
Corn liquid and water.	. . . . .	1-1/2 gal . . . . .	. . . . .	3. Beat eggs.
Eggs	4 lb	36 large . . . . .	. . . . .	4. Add eggs, fat, and salt to milk; blend well.
Butter or margarine, melted.	12 oz	1-1/2 cups . . . . .	. . . . .	5. Cover corn with egg-milk mixture, about 3 lb 1 oz (2-1/4 qt) per pan; blend.
Salt	2 oz	3 Tbsp . . . . .	. . . . .	6. Set pans in pans of hot water and bake at 350° F (moderate oven) about 25 minutes until set.

SERVING: 1 piece, 2 by 3-3/4 inches—provides 1/4 cup vegetable.

▲Non-instant nonfat dry milk (card A-10).

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For ____ serving recipe
Canned whole kernel corn	2-1/4 No. 10 cans . . . . .	. . . . .
Green peppers	6-1/2 oz . . . . .	. . . . .

HOW TO CALCULATE THE QUANTITIES OF FOOD NEEDED

General Information A-3

Each recipe in this file is designated to provide 100 servings of a specified size or a given quantity of food. Since most schools will not serve exactly 100 lunches each day, it is necessary to increase or decrease the number of servings in a recipe.

When increasing a recipe, consider the size of the equipment and the recommended size of a batch for a good quality product. If necessary, make several batches of the recommended size to get the total number of servings required for the school.

TO CHANGE THE SIZE OF A 100-SERVING RECIPE

1. On the front of the recipe cards, in the column headed "For ____ servings", write the number of servings needed.
2. Divide this number by 100 to obtain a factor.
3. Multiply the amount of each ingredient (weight or measure) by the factor to obtain the amount to prepare for the required number of servings. Enter this amount in the recipe opposite the ingredient.
4. On the back of the recipe card in the Marketing

- Guide, in the column headed "For ____ serving recipe", record the number of servings needed.
5. Multiply the amount of each ingredient by the factor to obtain the amount to purchase. Enter this amount in the Marketing Guide opposite the food.
6. Convert decimal parts of volume or weight measures to the nearest measurable amounts. Use card A-9 to change decimal parts of 1 pound to ounces, 1 cup to tablespoons, and 1 gallon to cups.

EXAMPLE: 325 servings of MASHED POTATOES (J-16)

Ingredients	100 servings		For 325 servings	Calculations
	Weights	Measures		
*Potatoes, pared . . .	23 lb 8 oz . . . .	.....	76 lb 6 oz	$325 \div 100 = 3.25$ (a factor) $23.5 \text{ lb} \times 3.25 = 76.375 \text{ lb}$ (76 lb 6 oz)
Hot milk . . . . .	.....	1 to 1-1/3 qt .	3-1/4 qt to 1 gal 1-3/4 qt.	$1 \text{ qt} \times 3.25 = 3.25 \text{ qt}$ (3-1/4 qt) $1.75 \text{ qt} \times 3.25 = 5.69 \text{ qt}$ (1 gal 1-3/4 qt)
Salt	2 oz.	3 Tbsp	6-1/2 oz.	$2 \text{ oz} \times 3.25 = 6-1/2 \text{ oz}$
Butter or margarine, melted.	1 lb	2 cups	3 lb 4 oz	$1 \text{ lb} \times 3.25 = 3.25 \text{ lb}$ (3 lb 4 oz)

SERVING: 1/2 cup.

NOTE: The weight (or measure) of a prepared food is the actual quantity needed to prepare the recipe.

★MARKETING GUIDE FOR SELECTED ITEMS

Food as purchased	For 100-serving recipe	For 325-serving recipe	Calculations
Potatoes	29 lb	94 lb 4 oz	$29 \text{ lb} \times 3.25 \text{ lb} = 94.25 \text{ lb}$ (94 lb 4 oz)

NOTE: The weight of the food as purchased should give the amount needed if GOOD QUALITY FOOD is purchased and it is prepared by methods that result in a minimum of waste. More food may be needed to obtain the amount specified in the recipe if lower quality food is used and preparation losses are above average.

NONFAT DRY MILK: NON-INSTANT AND INSTANT

General Information A-10

Nonfat dry milk reconstituted with water may be used in place of fluid milk in recipes in this file. Nonfat dry milk may also be mixed with the dry ingredients in the recipe and the water for reconstitution used in place of milk specified.

this card file is always for non-instant nonfat dry milk (see note below). Directions for using nonfat dry milk to prepare fluid skim milk, buttermilk, and sour milk are given below. See below for weight-volume equivalents.

The volume measure given in quantity recipes in

How to Prepare Fluid Skim Milk, Buttermilk, and Sour Milk¹

Ingredients	1 gallon reconstituted		Directions
	Weights	Measures	
FLUID SKIM MILK Nonfat dry milk Non-instant or Instant Water, room temperature.	14 oz or 14 oz	3 cups or 1 qt 1-1/3 cups . 3-3/4 qt	1. Sprinkle <i>non-instant</i> dry milk on top of water and beat with mixer, rotary beater, or wire whip until smooth <i>or</i> Mix <i>instant</i> dry milk and water in a gallon jar with a tight lid or a large pitcher. Shake or stir to mix. 2. If not used immediately, cover and refrigerate.
BUTTERMILK Nonfat dry milk Non-instant or Instant Lukewarm water Commercial buttermilk.	14 oz or 14 oz	3 cups or 1 qt 1-1/3 cups . 3 qt 2 cups	1. Reconstitute nonfat dry milk with lukewarm water. Stir in buttermilk. 2. Cover. Let stand at room temperature 8 hours. Stir until smooth. 3. Cover and refrigerate until used.

¹ To prepare Sour Milk, use 1 cup vinegar in place of 1 cup of the water in Fluid Skim Milk recipe.

Reconstitution of Nonfat Dry Milk (Fluid Skim Milk = Nonfat Dry Milk + Water)

Fluid skim milk	Nonfat dry milk			Water
	Weight	Measures		
		Non-instant	Instant	
1 quart	3—1/2 oz	3/4 cup	1—1/3 cups	3—3/4 cups
2 quarts	7 oz	1—1/2 cups	2—2/3 cups	1 qt 3—1/2 cups
3 quarts	10—1/2 oz	2—1/4 cups	1 qt	2—3/4 qt
1 gallon	14 oz	3 cups	1 qt 1—1/3 cups . .	3—3/4 qt
2 gallons	1 lb 12 oz	1—1/2 qt	2 qt 2—2/3 cups . .	1 gal 3—1/2 qt
3 gallons	2 lb 10 oz	2—1/4 qt	1 gal	2 gal 3—1/4 qt
4 gallons	3 lb 8 oz	3 qt	1 gal 1—1/4 qt . . .	3—3/4 gal
5 gallons	4 lb 6 oz	3—3/4 qt	1 gal 2—3/4 qt . . .	4—3/4 gal
6 gallons	5 lb 4 oz	1 gal 2 cups	2 gal	5 gal 2—1/2 qt

NOTE: To determine the volume of instant nonfat dry milk to use in a recipe, multiply the volume of non-instant nonfat dry milk given in the recipe by the factor 1.8.
Nonfat dry milk donated to schools is intended for use in cooking and is fortified with Vitamins A and D.
One cup (reconstituted) provides 500 International Units of Vitamin A and 100 International units of Vitamin D.

